

FIGURE 2

1 A gctgtgcagagccgtctggcagggttgacctcctaaagggatattccatctttattaatcattag 65

66 A tagtgtgggtcagagacttagcaccattgggtctccccaacctgggtccagacatttcagcagttta 130

131 A tcggaacagcaacaacagcaacaaaaccttcaaaatttacaagtctttaagaaatagaaATGgca 195

B tggcttcgcgtgggtggaggaggcgcggtgcagggtctttaagaaatagaaATGgca

1 M A 2

196 tccaaaagagctctgggtcatcctagccaaaggagcagaggagatggagacagtgattcctgtgga 260

16 S K R A L V I L A K G A E E M E T V I P V D 24

261 catcatcgggcgagctgggattaaagtcaccgttgcaggcttggctgggaaggacccccgtgcagt 325

38 I M R R A G I K V T V A G L A G K D P V Q 45

Peptide 1

326 gtagccgtgatgtagtgatttgtccggataccagtcctggaagaagcaaaaacacagggaccatac 390

59 C S R D V V I C P D T S L E E A K T Q G P Y 67

391 gatgtgggtgttcttccaggaggaaatctgggtgcacagaacttatctgagtcgggctttgggtgaa 455

81 D V V V L P G G N L G A Q N L S E S A L V K 89

456 ggagatcctcaaggagcaggagaacaggaagggcctcatagctgccatctgtgcgggtcctacgg 520

103 E I L K E Q E N R K G L I A A I C A G P T 110

Peptide 2

*

521 ccttgcgtgggtcacgaagtaggctttggatgcaaggttacatcgcacccattggctaaggacaaa 585

124 A L L A H E V G F G C K V T S H P L A K D K 132

Peptide 3

586 atgatgaacggcagtcactacagctactcagagagccgtgtggagaaggacggcctcactcctcac 650

146 M M N G S H Y S Y S E S R V E K D G L I L T 154

Peptide 4

651 cagccgtgggcctgggaccagcttcgagtttgcgctggccattgtggaggcactcagtggaagg 715

168 S R G P G T S F E F A L A I V E A L S G K 175

716 acatggctaaccaagtgaaggccccgcttgttctcaaagacTAGagagcccaagccctggaccct 780

189 D M A N Q V K A P L V L K D * 189

781 ggacccccaggctgagcaggcattggaagcccactagtgtgtccacagcccagtgaaacctggcat 845

846 tggaaagcccactagtgtgtccacagcccagtgaaacctcaggaactaacgtgtgaagtagcccgcct 910

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976 agctc*c*tgacggct* 985

Figure 3

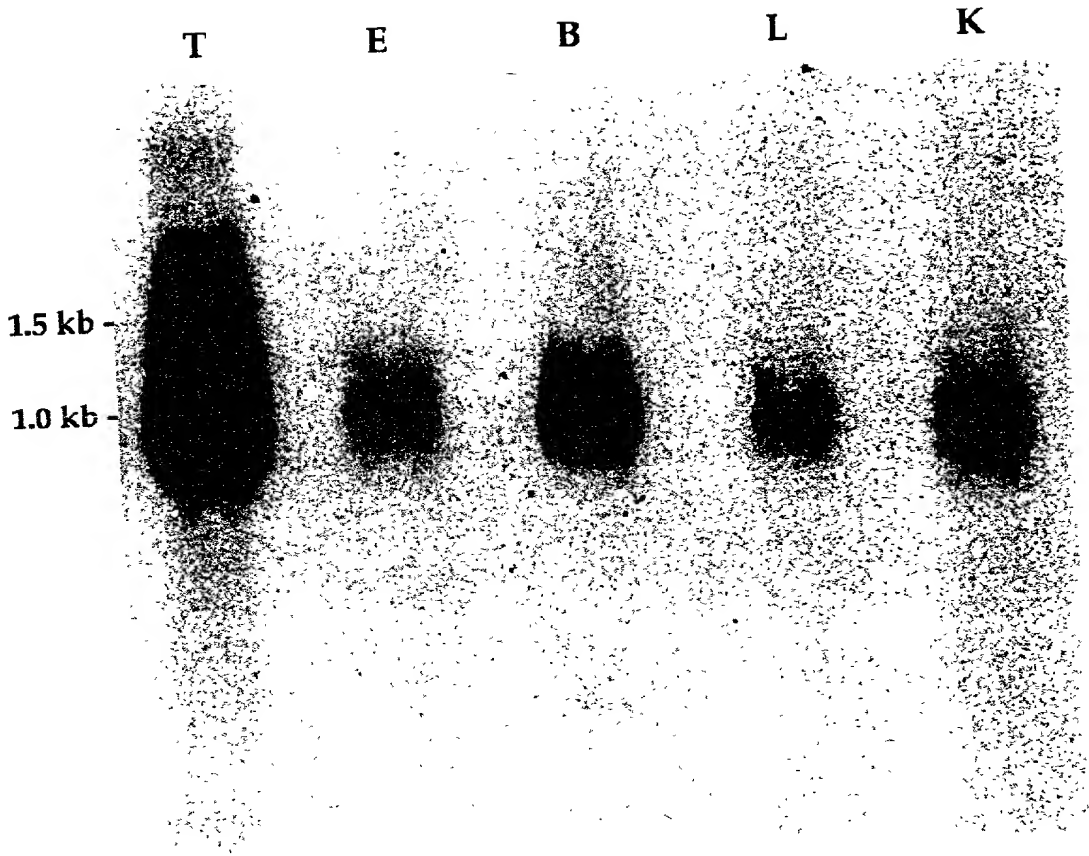


Figure 4

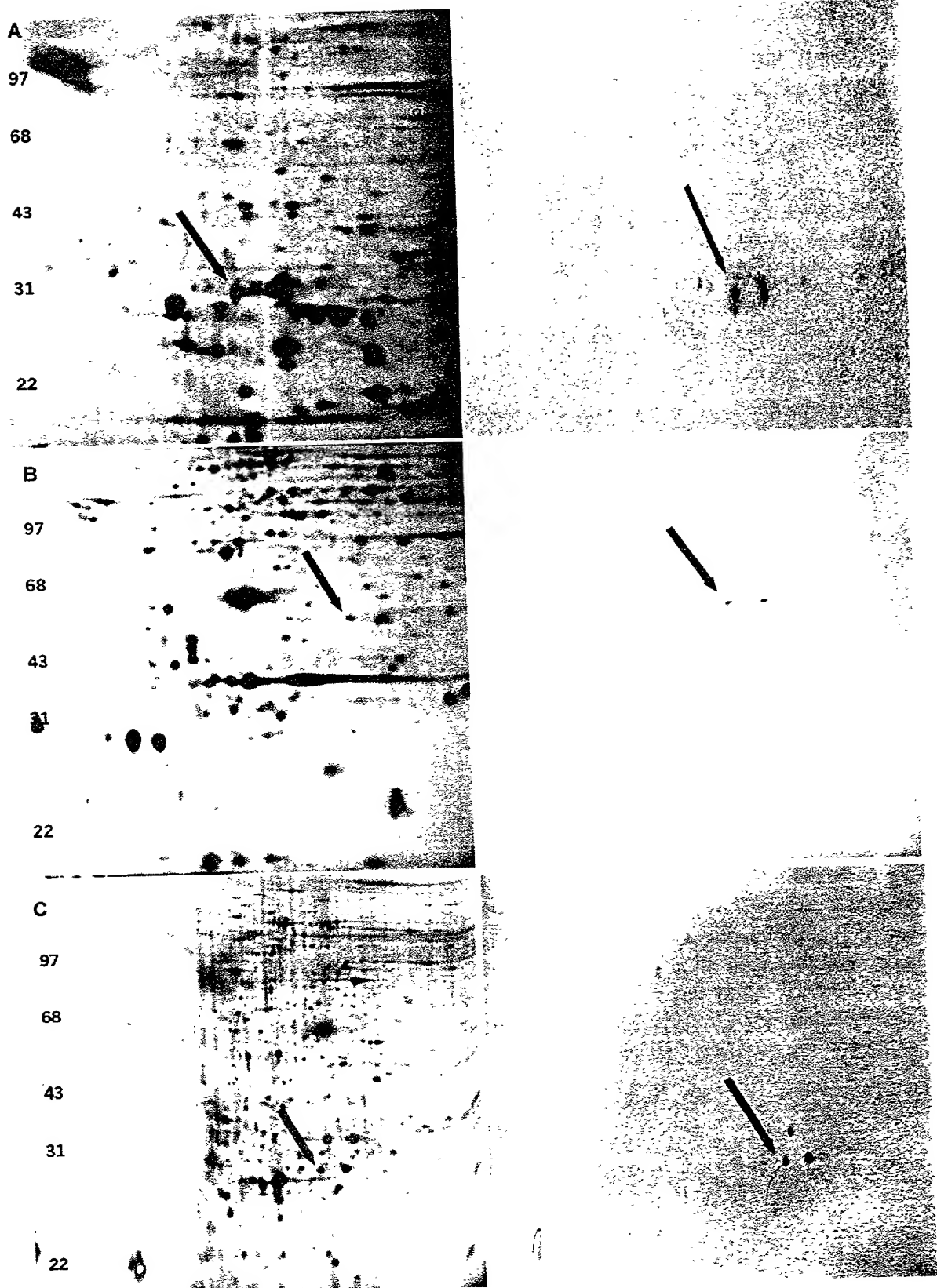
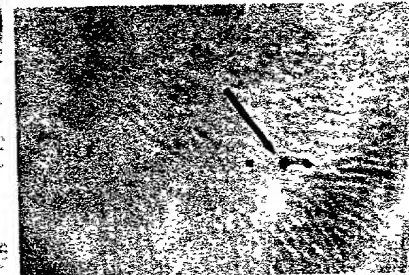


Figure 5

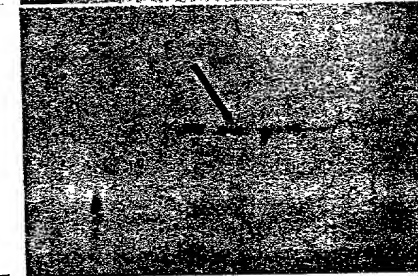
RAT



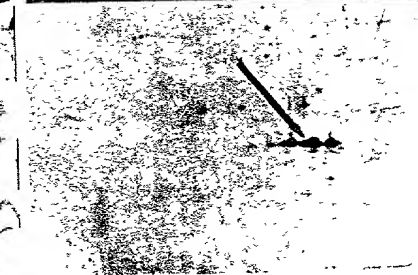
RABBIT



HORSE



BULL



HUMAN

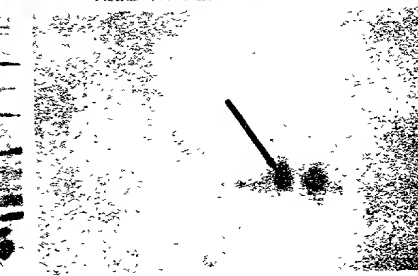


Figure 6

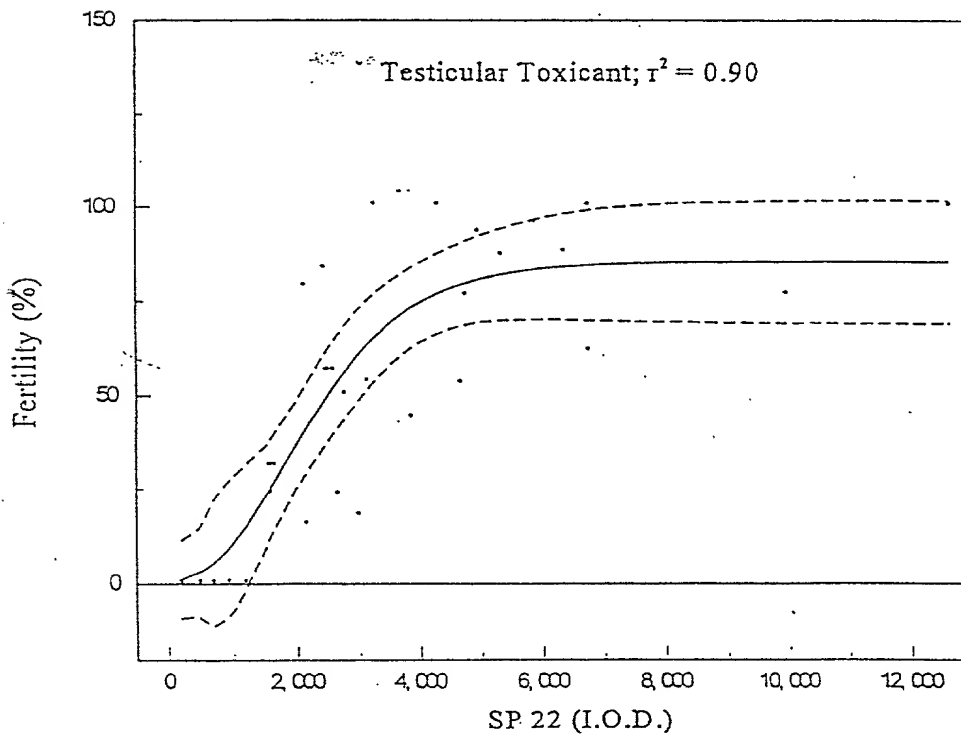
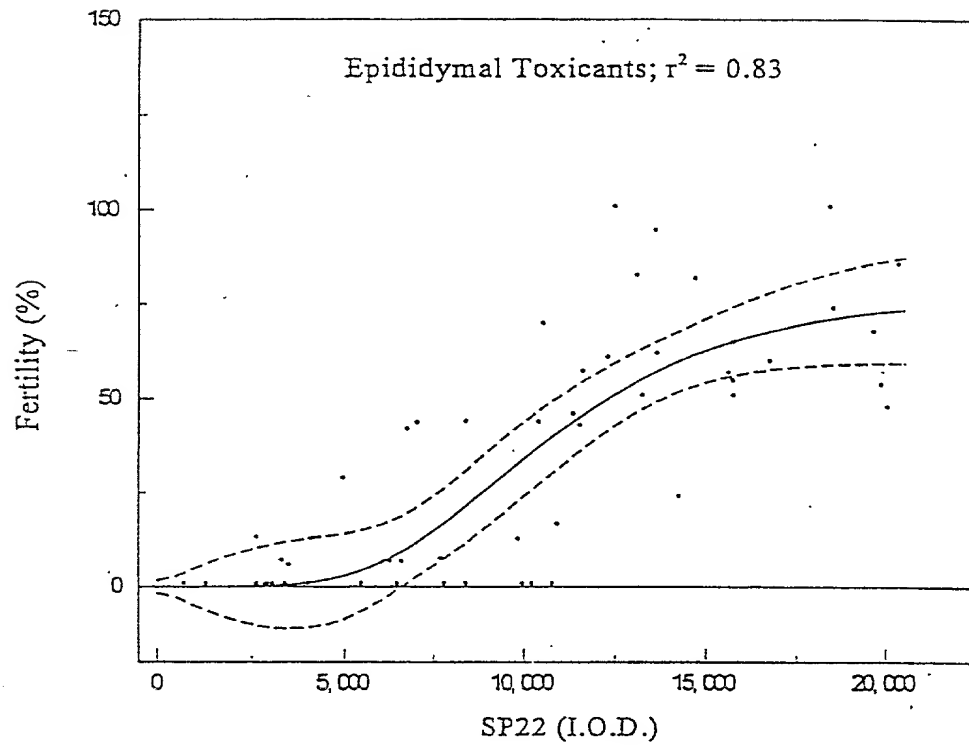


Figure 1



Figure 8

OD at 450 nm

0 0.5 1 1.5 2 2.5

Sequential Sp22 15 MER Peptides

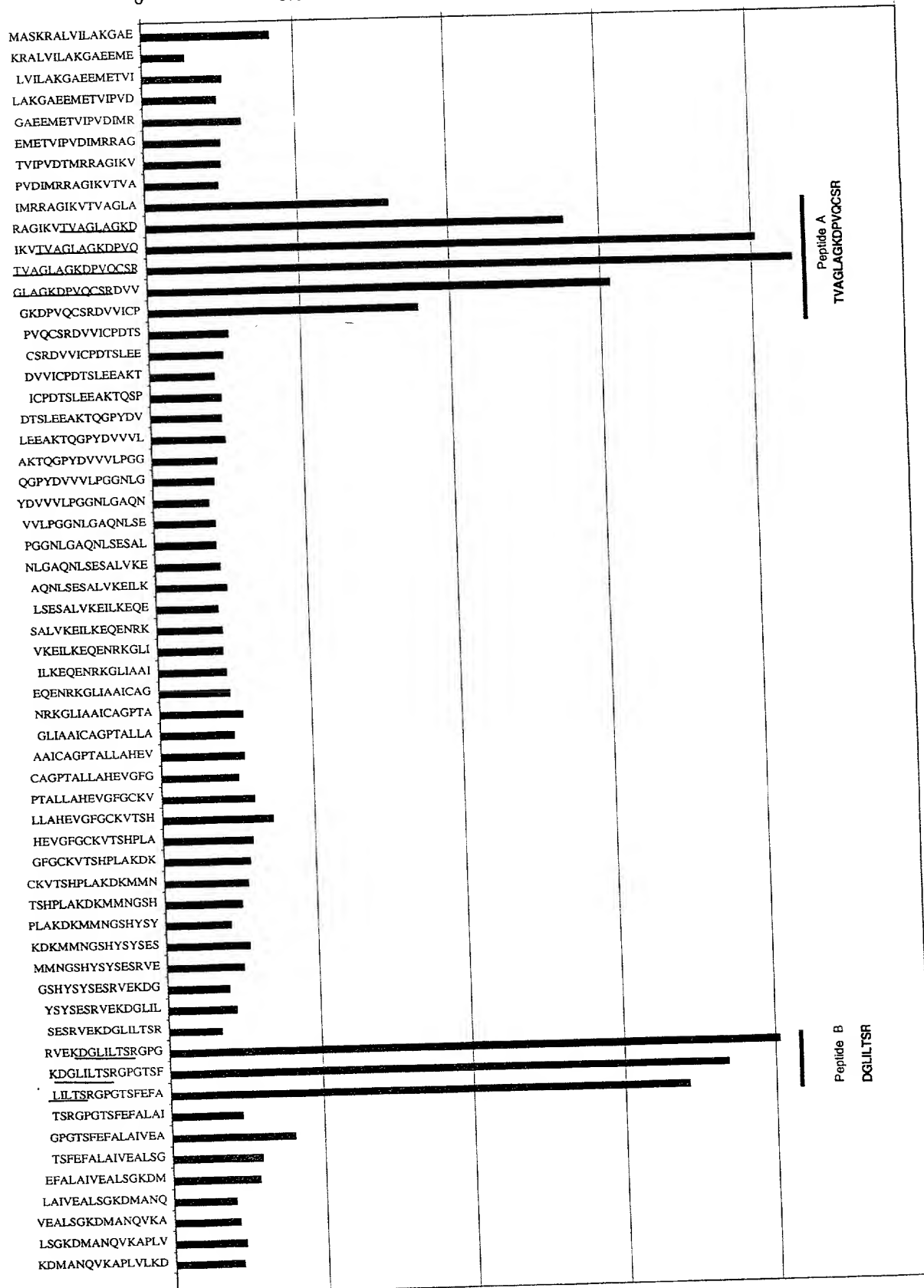


Figure 9

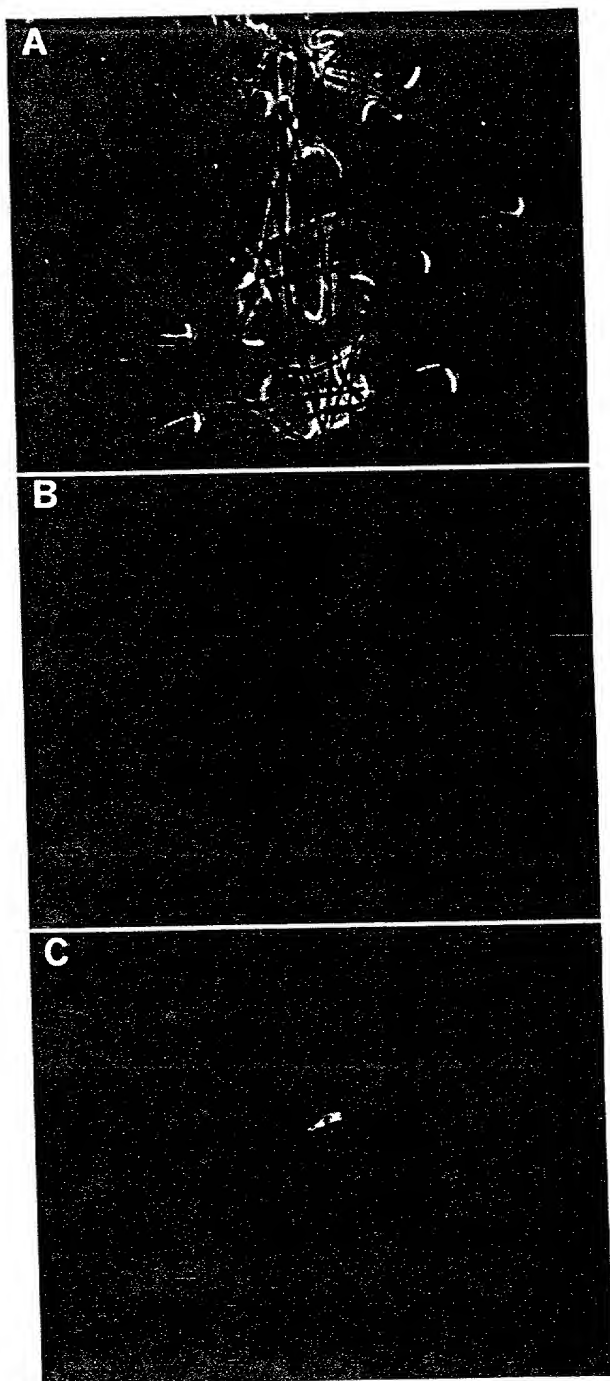


Figure 10

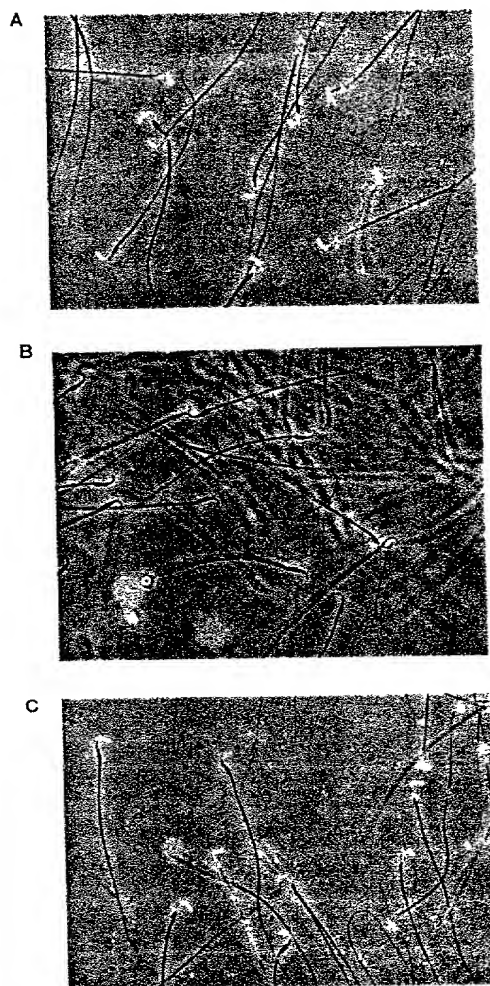


Figure 11

In Utero Insemination

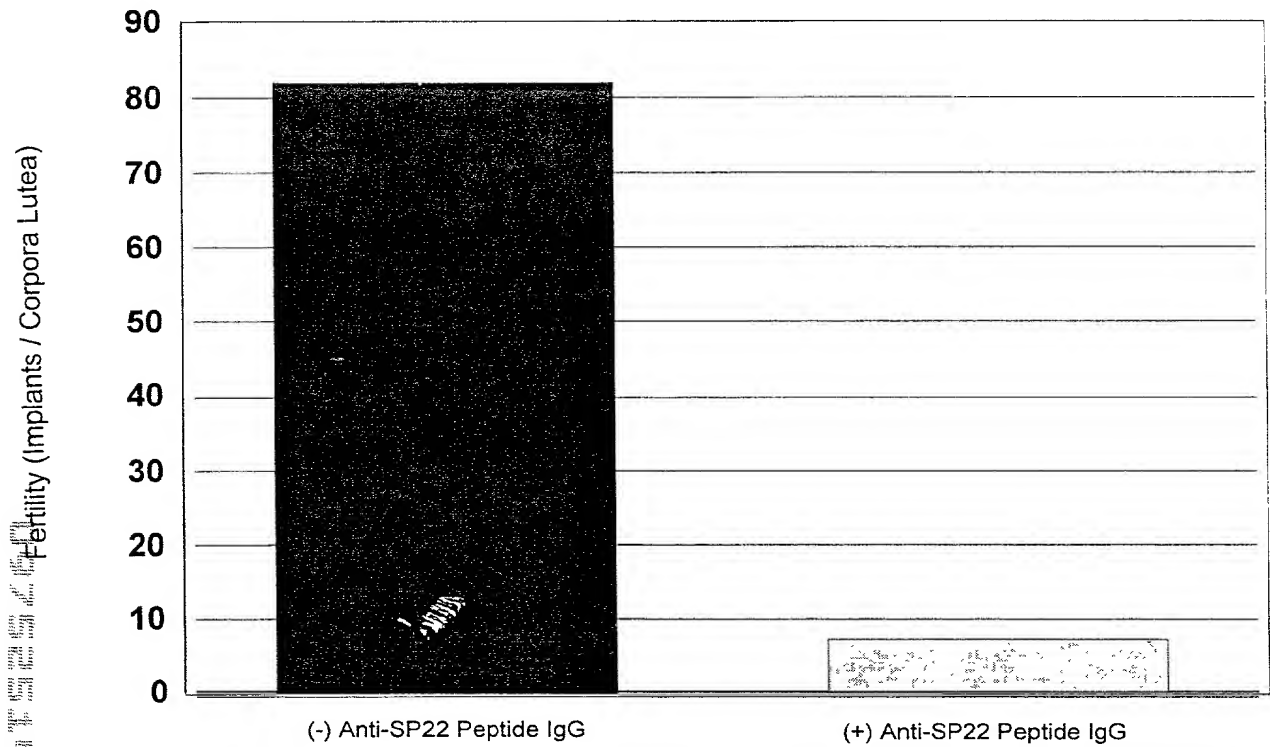


Figure 12

In Utero Insemination

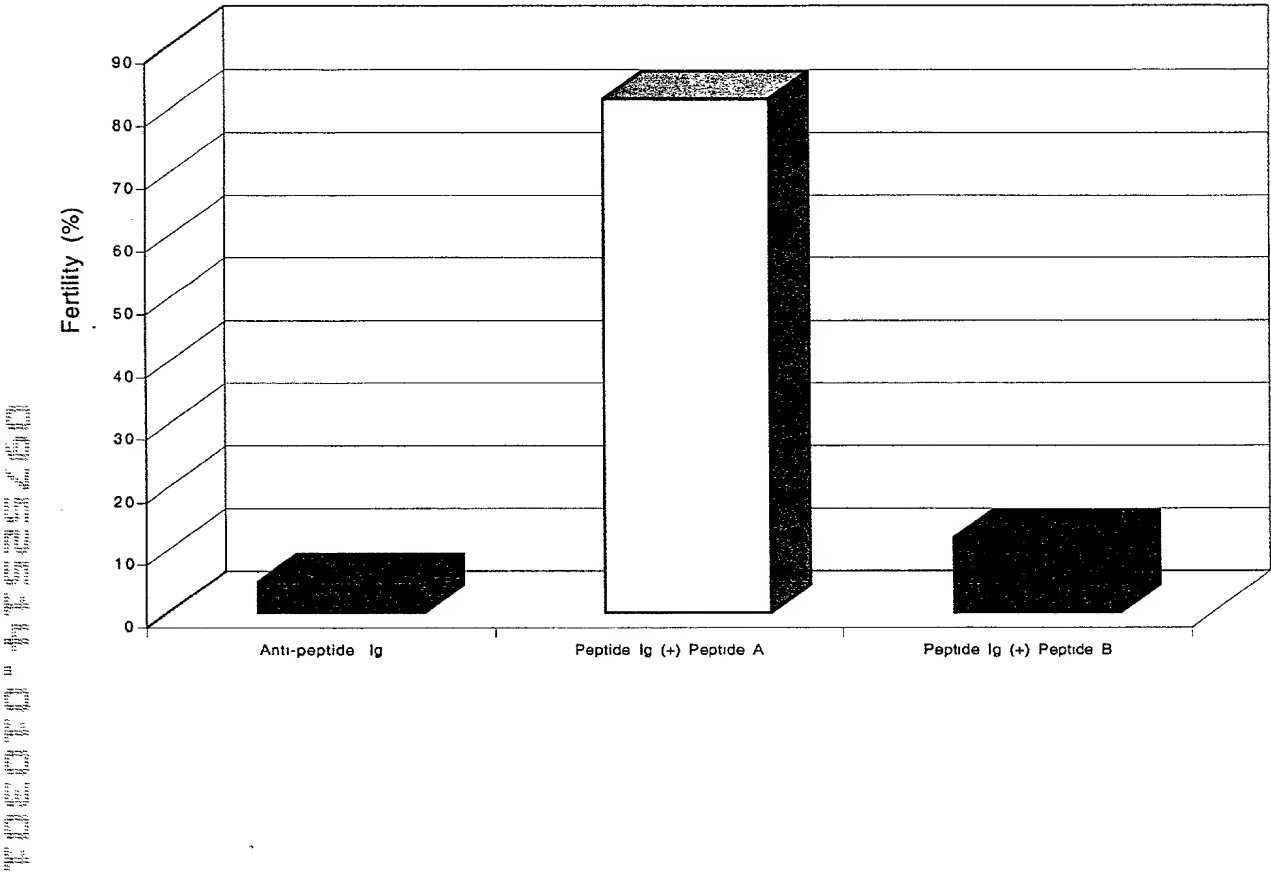
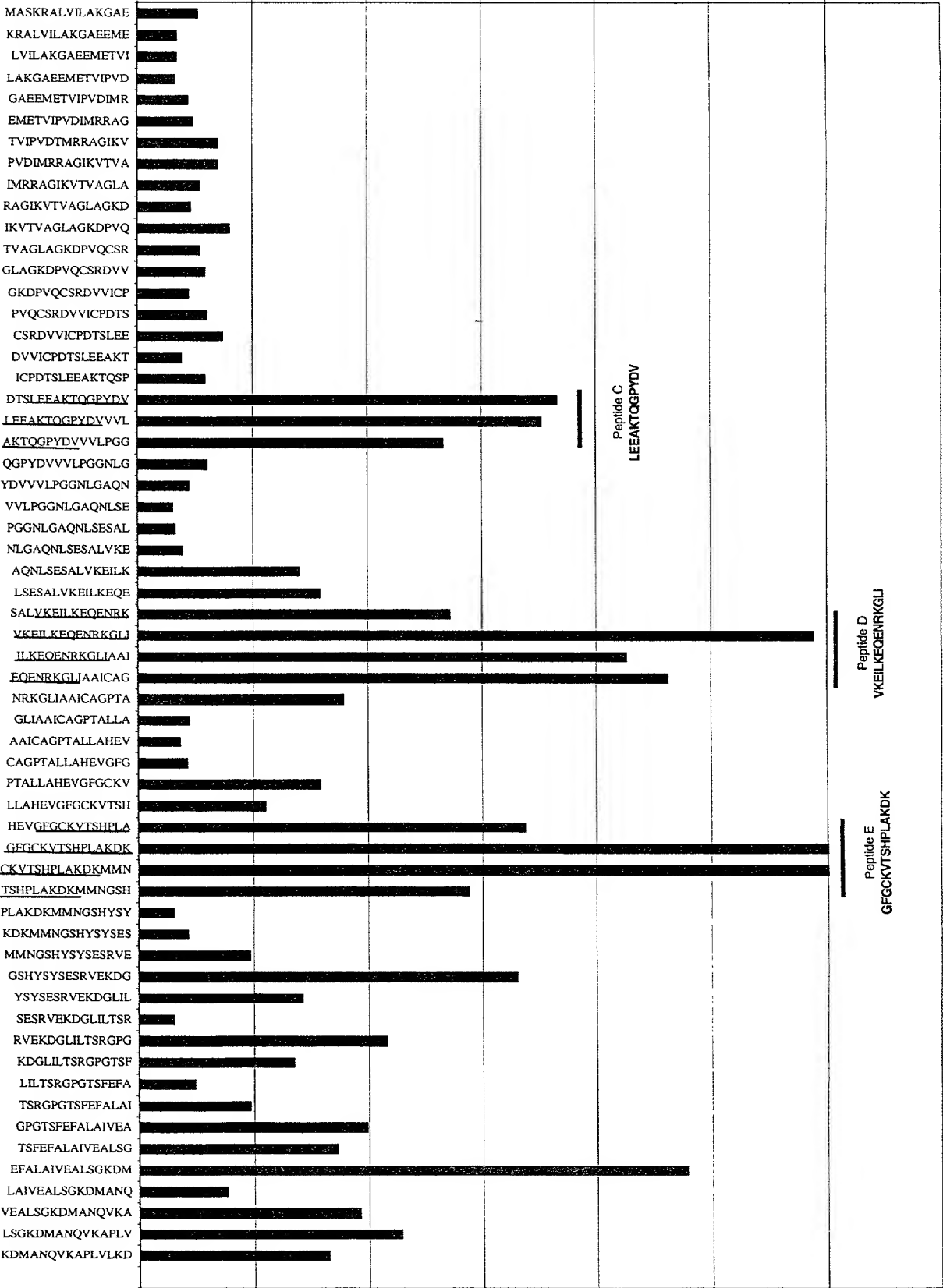


Figure 13

OD at 450 nm

0 0.5 1 1.5 2 2.5 3 3.5



Peptide C
LEFAKTQGPYDV

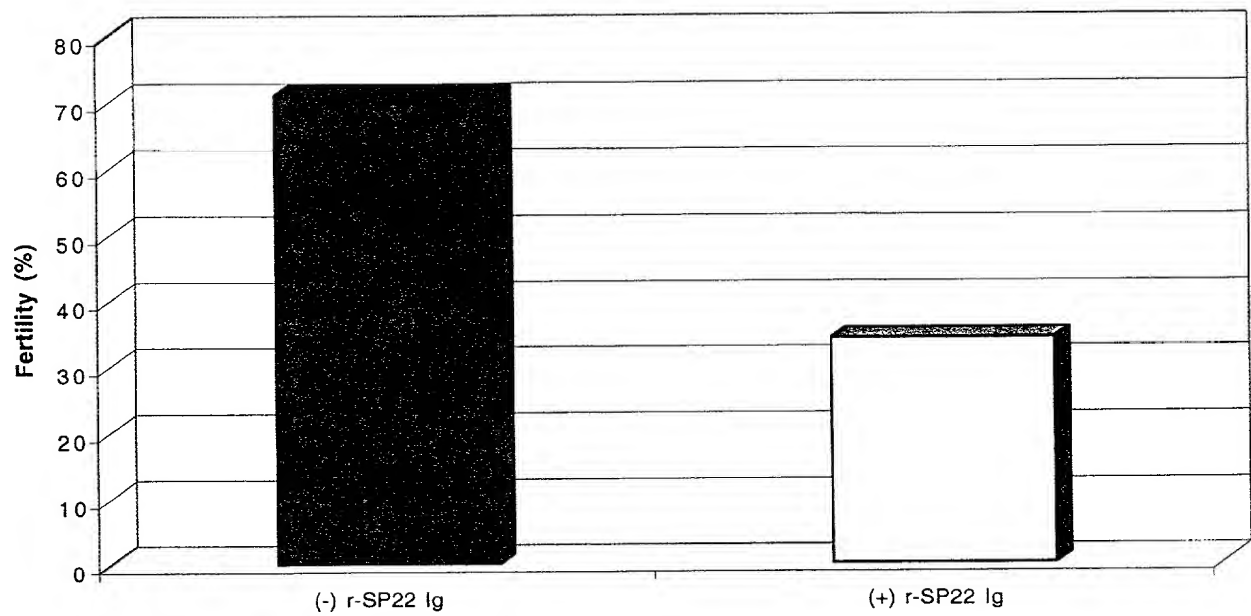
Peptide D
VKEILKEQENRKGLJ

Peptide E
GEGCKVTSHPLAKDK

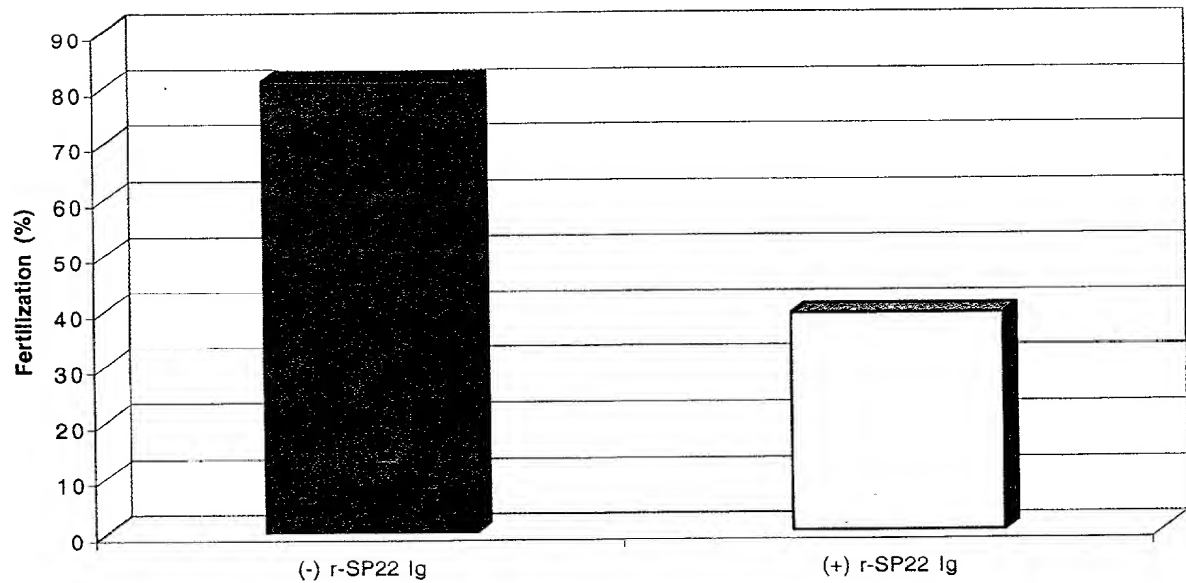
Sequential Sp22 15 MER Peptides

Figure 14

In Utero Insemination



In Vitro Fertilization



[illegible]

1 ~~XX~~atggcatccaaagagctctggtcac 66
1 X X X X X X X X X X X X X X M A S K R A L V I 22
67 ctagccaaaggagcagaggagatggagacagtgtattcctgtggacatcatgcgcgagctgggatt 132
23 L A K G A E E M E T V I P V D I M R R A G I 44
133 aaagtcaccgttgcaggcttggctgggaaggaccccggtgcagtgtagccgtgatgtagtgtattgt 198
45 K V T V A G L A G K D P V Q C S R D V V I C 66
199 ccggataccagctctggaagaagcaaaaacacagggaccatacgcgtgtggttgttcttccaggagga 264
67 P D T S L E E A K T Q G P Y D V V V L P G G 88
265 aatctgggtgcacagaacttatctgagtcggccttgggtgaaggagatcctcaaggagcaggagaaac 330
89 N L G A Q N L S E S A L V K E I L K E Q E N 110
331 aggaagggcctcatagctgccatctgtgcggttctacggccctgctgggtcacgaagtaggcttt 396
111 R K G L I A A I C A G P T A L L A H E V G F 132
397 ggatgcaaggttacatcgccaccattggctaaggacaaaatgatgaacggcagtcactacagctac 462
133 G C K V T S H P L A K D K M M N G S H Y S Y 154
463 tcagagagccgtgtggagaaggacggcctcatcctcaccagccgtgggcctgggaccagcttcgag 528
155 S E S R V E K D G L I L T S R G P G T S F E 176
528 tttgcgctggccattgtggaggcactcagtggaaggacatggctaaccaagtgaaggccccgctt 594
177 F A L A I V E A L S G K D M A N Q V K A P L 198
595 gttctcaaagactagagagcccaagccctggaccctggacccccaggetgagcaggcattggaagc 660
199 V L K D * 202
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727 gaacctcaggaactaacgtgtgaagtagcccgctgctcaggaatctgcacctggctctgtactatt 792
793 ctgagccttctgtagtagaataaacagttccccaagctc 830

SP22 (A)

FIGURE 16

1 gctgtgcagagccgtctggcagggttgacctccTaaagggatattccatctttattaatcattag 65
66 tagtgtgggtcagagacttagcaccattgggtctccccaacctgggtccagacatttcagcagttta 130
131 tcggaacagcaacacagcaacaaaaccttcaaaatttacaagtcctttaagaaatagaaATGgca 195
1 M A 2
196 tccaaaagagctctggtcacacctagccaaaggagcagaggagatggagacagtgattcctgtgga 260
3 S K R A I V I L A K G A E E M E T V I P V D 24
261 ca:catgcggcga:ctgggattaaagtccaggttgaggcttggtgggaaggaccccggtgcagt 325
25 I M R R A G I K V T V A G L A G K D P V Q 45
326 gtagccgtgatgtagtgtattgtccggataccagtcctggaagaagcaaaaacacagggaccatac 390
46 C S R D V V I C P D T S L E E A K T Q G P Y 67
391 gatgtggttgttcttccaggaggaaatctgggtgcacagaacttatctgagtcggcttttggtgaa 455
68 D V V V L P G G N L G A Q N L S E S A L V K 89
456 ggagatcctcaaggagcaggagaaacaggaaggggcctcatagctgccatctgtgcgggtcctacgg 520
90 E I L K E Q E N R K G L I A A I C A G P T 110
521 cctgtctgggtccgaagtaggctttggatgcaagggttacatcgcacccattggctaaggacaaa 585
111 A L L A F E V G F G C K V T S H P L A K D K 132
586 atgatgaacggc:gtcactacagctactcagagagccgtgtggagaaggacggcctcatcctcac 650
133 M M N G S H Y S Y S E S R V E K D G L I L T 154
651 cagccgtgggccc:gggaccagcttcgagtttgcgctggccattgtggaggcactcagtggaagg 715
155 S R G P G T S F E F A L A I V E A L S G K 175
716 acatggctaacc:agtgaggcccccgttgttctcaaagacTAGagagcccaagccctggaccct 780
176 D M A N Q V K A P L V L K D 189
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911 gctcaggaatctcgccctgggtctgtactattctgagccttgctagtagaataaacagttcccca 975